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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,398	11/08/2001	Hyun Jung Kim	0630-1349P	5653

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EXAMINER

LEE, BENNY T

ART UNIT PAPER NUMBER

2817

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



Patent and Trademark Office

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	3

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-17 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-17 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. These drawings are: ☐ acceptable;
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections **MUST** be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☒ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☒ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

SN 986398

Art Unit: 2817

The disclosure is objected to because of the following informalities: At all occurrences throughout the specification, note that “microwave” (singular) should correctly be rewritten as --microwaves-- (plural) for a proper characterization. Page 1, line 18, is “plasmating” a proper characterization? Page 2, lines 3, 4, 15 and page 3, line 2, note that “in the front” appears to be an incomplete recitation needing clarification (i.e. “Front” of what?). Page 2, line 18 and page 4, line 12, note that “conventional” (i.e. denoting prior art) appears that it should be --background-- for consistency with the drawing figures. Page 3, line 2; page 6, lines 18, 20; page 7, lines 3, 4, 7, 8: note that “lengthily” should be rephrased for a proper characterization. Page 6, line 2, note that “make the bulb 80 place at the vertex” should be rephrased for clarity; line 18, note that “In the meantime” should be rephrased for clarity.

Appropriate correction is required.

The disclosure is objected to because of the following informalities: Note that the following reference labels need description relative to the corresponding drawing figures: fig. 1 (12); fig. 3 (50, 60, 63, 80, 85, 90); figs. 4A, 4B, 4C (630').

Appropriate correction is required.

The drawings are objected to because in Figs. 4A, 4B, 4C, reference labels (63', 63a) need to be provided as per the specification description. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear whether “a resonator excluding microwave” is a proper characterization. Note from the specification that microwaves need to be in the resonator such as to excite the bulb and hence causing light to be emitted from the bulb. Clarification is needed.

In claim 2, note that it is unclear whether “installed within the radius of the resonator” is a proper characterization.

In claim 5, note that “the bottom portion of the waveguide” has no relative meaning absent any reference orientation to establish such a reference. Also, note that “so as to be the same as ...” is vague in meaning (i.e. “same” in what way?).

In claims 6, 14, note that reference to the “opened bottom portion” is vague and indefinite for reasons given above.

In claim 7, note that “the internal area” lacks strict antecedent basis.

In claims 8, 9, note that reference to “the radius direction” is vague in meaning.

In claim 9, note that reference to “the circumference direction” is vague in meaning.

In claim 11, note that the recitation “in the front” has no relative meaning absent any reference orientation to establish what is “in front”.

In claims 11, 12, 13, note that “the concave portion” lacks strict antecedent basis.

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In claims 14, 16, note that reference to "the extended portion" lacks strict antecedent basis.

The following claims have been found objectionable for reasons set forth below:

All occurrences throughout the claims, note that "microwave" should correctly be --microwaves--.

In claim 1, note that "on the side" should be --on a side-- and "oscillating" should be --transmitting--, respectively.

In claims 3, 10, note that "place" should be --receive--.

In claim 3, note that "inserting" should be --inserted--.

In claims 4, 5, 8, 9, note that "formed" should be --provided--.

In claim 6, note that --conic shape-- should precede "waveguide" (2nd occ).

In claim 6, "constructed with" should be deleted as being unnecessary.

In claims 8, 9, note that "lengthily" should be rewritten for clarity.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15, 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by

Simpson ('865).

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Simpson ('865), at Fig. 3 thereof, discloses a lighting apparatus comprising a resonator defined by a metallic mesh (19), a waveguide, ~~which in its broadest sense is any waveguide,~~ which in its broadest sense is any waveguiding medium, such as the coaxial transmission line defined by inner conductor (23) of the waveguide. An electrodeless lamp bulb (15) is centrally disposed within the resonator (19). Moreover, note that the waveguide (i.e. the coaxial transmission line) is located within the "internal domain" or inner boundaries of the resonator. In operation, the magnetron generates electromagnetic energy which is radiated by antenna (12), propagated along waveguide inner conductor (23) to excite and ionize the gas in the electrodeless bulb (15) into a plasma and thereby emitting light therefrom. The emitted light passes through the metallic mesh which also blocks or shield any electromagnetic energy from exiting the lamp. See col. 1, ls. 12-20.

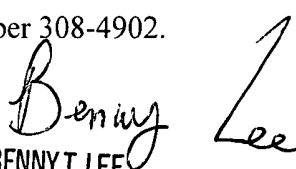
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Simpson et al ('698) pertains to a hollow waveguide structure for exciting an electrodeless lamp.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 308-4902.

Lee/ek

05/01/03


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817